

OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD

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FINAL STATEMENT OF REASONS

CALIFORNIA CODE OF REGULATIONS

TITLE 8: Chapter 4, Subchapter 4, Article 3,
Section 1518(d) of the Construction Safety Orders

Protection from Electric Shock

MODIFICATION AND RESPONSE TO COMMENTS RESULTING FROM THE 45-DAY PUBLIC COMMENT PERIOD

There are no modifications to the information contained in the Initial Statement of Reasons.

SUMMARY AND RESPONSE TO ORAL AND WRITTEN COMMENTS

I. Written Comments

There were no written 45-day Notice comments submitted to the Board.

II. Oral Comments

Oral comments received at the July 21, 2005, Public Hearing in San Diego, California.

Mr. Fred Dunn, CTEM Contractor

Comment:

Mr. Dunn indicated that he did not know whose safety order is cited in existing language contained in subsection (b) of the proposal. He indicated that the California Building Standards Commission (CBSC) adopted the National Electrical Code (NEC) in 2002 which makes reference to the National Fire Protection Association (NFPA) 70E standard and added that the 70E standard has a new directive for 2004 that is very restrictive. Mr. Dunn stated that he believes the proposal will require the facility owner to have a single line diagram of the premises that indicates the fault current in all locations, in order to identify proper Cal-OSHA rated clothing the employees should wear. Mr. Dunn requested clarification on whether or not the proposal is located in the Electrical Safety Orders or included in the NEC or NFPA Safety Orders.

Response:

Subsection (b) refers to an existing requirement for protecting insulative equipment that states that when such equipment is used (not mandated), it is to comply with the requirements of Title 8, Electrical Safety Orders which address the use of protective equipment including but not limited to gloves, barriers, insulating blankets, non conductive tools, etc. This portion of Mr. Dunn's comment relates to an existing Title 8 requirement that is not proposed for amendment and is therefore outside the scope of the current rulemaking proposal to amend Section 1518 to address an entirely different issue consistent with what is required by comparable Federal OSHA standards.

Subsection (b) states that when protective insulating equipment is used the employer is to refer to applicable portions of Title 8, Electrical Safety Orders which to date have not been amended to include the requirements of the 2002 or the 2004 directive contained in the National Electrical Code which has been adopted by the CBSC into the California Electrical Code. Section 1518(b) is a reference to Title 8, Electrical Safety Orders, not the CBSC California Electrical Code.

The Board thanks Mr. Dunn for his participation in the Board's rulemaking process.

Ms. Elizabeth Treanor, Phylmar Regulatory Roundtable

Comment:

Ms. Treanor expressed her appreciation of Board staff's excellent work on the proposal and indicated that it is properly placed in the Construction Safety Orders (CSO).

Response:

The Board concurs with Ms. Treanor with respect to the place of the proposal in the CSO, acknowledges her approval of the proposal and appreciates her participation in the Board's rulemaking process.

SUMMARY AND RESPONSE TO ORAL COMMENTS RECEIVED
AT THE SEPTEMBER 15, 2005, PUBLIC MEETING

I. Oral Comments

Mr. Bill Jackson, Granite Construction

Comment:

Mr. Jackson stated that he is concerned that the proposal for Section 1518(d), Protection from Electric Shock, may not have taken into consideration that the excavation orders in

Section 1541 already require notification at least 48 hours prior to the start of the job. He stated that the regulated community needs to know if it is the Board's intent to have contractors comply with more than the marking and one-call center (Underground Service Alert) requirement contained in Section 1541, in order to be deemed in compliance with Section 1518(d).

Response:

The Board notes that Section 1541 is a vertical standard that specifically applies to excavations as defined in the Construction Safety Orders. Section 1518 applies to general construction operations where employees could come in contact with energized conductors in situations that do not involve an excavation (e.g. energized conductors encased in a concrete slab, vault, in a wall or the floor of a multistory building).

Proposed Section 1518(d) requires the employer to ascertain the presence of energized conductors by a number of methods, one being an inquiry that would include consulting the one-call center as specified in Section 1541 (i.e. Underground Service Alert). Proposed Section 1518(d) addresses an occupational safety issue addressed by federal OSHA and must be addressed in Title 8 as required by Labor Code section 142.3(a)(2).

The Board agrees with Mr. Jackson that further clarification or delineation between the respective requirements contained in Sections 1518(d) and 1541 would provide clarity.

At the September 15, 2005, Business Meeting, the Board directed Board staff to address the concerns expressed by Mr. Jackson and the subsequent comment from Ms. Stroup-Fisher via the 15-Day Notice process. The Board staff has proposed a clarifying "NOTE" to Section 1518(d) that indicates to the employer that Section 1518(d) applies to electrical installations present on the jobsite which do not involve excavations as defined in Section 1540 and that electrical installations that involve excavations are subject to the requirements of Section 1541.

The Board thanks Mr. Jackson for his comment and participation in the Board's rulemaking process.

Ms. Marti-Stroup-Fisher, Associated General Contractors of California

Comment:

Ms. Stroup-Fisher stated that she agrees that Section 1518 is unclear as to whether the underground service alert identification of the electrical circuit satisfies the requirement. She recommended the Board to send this proposal to an advisory committee.

Response:

See the preceding Board's response to Mr. Bill Jackson's comment.

The Board thanks Ms. Stroup-Fisher for her comment and participation in the Board's rulemaking process.

**MODIFICATION AND RESPONSE TO COMMENTS RESULTING
FROM THE SEPTEMBER 15, 2005, PUBLIC MEETING**

As a result of comments received at the September 15, 2005, Public Meeting in Sacramento, California, the Board expressed concerns over the clarity of the proposed language and directed Board staff to resolve the issues raised by representatives from Granite Construction and Associated General Contractors of California, through the 15-Day Notice process. Thus, the Board staff has proposed modifications to the original proposal that was heard by the Board at the July 21, 2005, Public Hearing in San Diego, California.

The modification is intended to address the hazard of employee contact with concealed or exposed electrical conductors exclusive of subsurface electrical conductors addressed by CSO Section 1541 which pertains to excavations.

Section 1518. Protection from Electric Shock

Existing Section 1518 contains standards addressing means and methods to protect employees from coming in contact with energized electrical equipment, such as the use of personal protective equipment/devices, the use of insulating equipment, or barricades.

An amendment is proposed to add a new subsection (d), which would require the employer to ascertain by inquiry, direct observation, or by instruments, whether any part of an energized electric power circuit, exposed or concealed, is so located that the performance of the work may bring any person, tool, or machine into physical or electrical contact with the electric power circuit. This determination is to be made prior to the commencement of any work. Where it has been determined that such energized circuits exist, the employer would be required to provide markings to indicate the presence and location of such circuits, or post warning signs in accordance with Section 3340 of the General Industry Safety Orders. The employer would also be required to advise the employee of the location of such energized circuits, the hazards involved, and the protective measures to be taken in accordance with CSO Section 1509.

As a result of public comments received at the September 15, 2005, Public Meeting, a modification is proposed to add an informative "NOTE" to subsection (d) stating that Section 1518(d) applies to jobsite electrical installations which do not involve excavations and that standards that apply to electrical installations and excavations are addressed by Section 1541 of the CSO.

The proposed modification is necessary to clarify to the employer that Section 1518(d) is intended to address and applies to the hazard of inadvertent employee contact with electrical

conductors present at the jobsite where no excavation occurred (e.g. in walls, floors, ceilings of a finished or unfinished structure), as opposed to Section 1541 which specifically applies to inadvertent contact with electrical conductors as a result of an excavation as defined in CSO Section 1540.

No further modifications were made to this proposal as a result of the 15-Day Notice of Proposed Modifications mailed on November 10, 2005.

DETERMINATION OF MANDATE

This standard does not impose a mandate on local agencies or school districts as indicated in the Initial Statement of Reasons.

ALTERNATIVES CONSIDERED

The Board invited interested persons to present statements or arguments with respect to alternatives to the proposed standard. No alternative considered by the Board would be more effective in carrying out the purpose for which the action is proposed or would be as effective and less burdensome to affected private persons than the adopted action.